



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/777,173

02/13/2004

Yoshiyuki Kiya

HITA.0514

4479

7590

02/09/2009

Stanley P. Fisher
Reed Smith LLP
Suite 1400
3110 Fairview Park Drive
Falls Church, VA 22042-4503

EXAMINER

CHIEN, LUCY P

ART UNIT

PAPER NUMBER

2871

MAIL DATE

DELIVERY MODE

02/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/777,173	Applicant(s) KIYA ET AL.	
	Examiner LUCY P. CHIEN	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 7-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/13/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/29/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claim 1,4-6 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1,5,6 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (US 4752118)

Regarding Claim 1,

Johnson discloses (Fig. 15-Fig. 17) a plurality of films including an insulation film (154), a semiconductor film (136), and a conductive film (156) are patterned in a given pattern and stacked on a substrate (132). The correction portion which separates a short-circuit defect is corrected. A upper layer (Fig. 16, Fig. 16 (182)) is present above the film to be corrected at the correction portion (188) and the correction is applied to the film to be corrected the upper-layer film while the upper-layer remains (188), and without using the upper layer film as a material for the correction. and the correction of the correction portion is performed by the irradiation of a laser beam (184) through the at least one upper layer film (182) from a side of the at least one upper layer film (182) opposite the substrate (172) and not through a substrate.

This is a product by process limitation [See MPEP 2113], which does not distinguish the structure of the claimed device from the structure of the reference so

Art Unit: 2871

Claim 1 is rejected as well. Johnson discloses the structure a plurality of films including an insulation film (154), a semiconductor film (136), and a conductive film (156) are patterned in a given pattern and stacked on a substrate (132) with a correction portion (188) therefore the device claim therefore meets this claims requirement wherein The correction portion which separates a short-circuit defect is corrected. A upper layer is present above the film to be corrected at the correction portion and the correction is applied to the film to be corrected the upper-layer film while the upper-layer remains, and without using the upper layer film as a material for the correction and the correction of the correction portion is performed by the irradiation of a laser beam through the at least one upper layer film from a side of the at least one upper layer film opposite the substrate and not through a substrate.(Note: Examiner can't tell from looking at the finished structure whether the repair was done through the SiO alignment layer or before the SiO layer was put on)

Regarding Claim 5.

Johnson discloses (Fig. 15-Fig. 17) the upper-layer film (182) above the film to be corrected (178) includes an insulator.

Regarding Claim 6.

Johnson discloses (Fig. 15-Fig. 17) the correction portion is performed by irradiating the laser beams (184) from a side opposite to the substrate (172).The corrected state is the normal performing state.

This is a product by process limitation [See MPEP 2113], which does not distinguish the structure of the claimed device from the structure of the reference so

Claim 6 is rejected as well. Johnson discloses the structure therefore the device claim therefore meets this claims requirement wherein the correction portion is performed by irradiating the laser beams from a side opposite to the substrate.

Claim 1,5,6 are rejected under 35 U.S.C. 102(b) as being anticipated by Katayama et al (US 5151807).

Katayama et al discloses in Figure 13, a plurality of films including an insulation film (111), a semiconductor film (113), and a conductive film (105a, or 126b) are patterned in a given pattern and stacked on a substrate (101).

Katayama et al also discloses (Column 19,Row 34-40) the correction portion which separates a short-circuit defect is corrected. A upper layer (Figure 13,(120)) is present above the film to be corrected (Figure 13,(101)) at the correction portion and the correction is applied to the film to be corrected while leaving the upper-layer film as it is via no other substrate (it irradiates a side opposite to the substrate (101) and via no other substrates, there are no other substrates that it irradiates besides 101). (Column 18, Row 61-68 and Column 19, Rows 1-4).

This is a product by process limitation [See MPEP 2113], which does not distinguish the structure of the claimed device from the structure of the reference so Claim 1 is rejected as well. Katayama discloses the structure a plurality of films including an insulation film (111), a semiconductor film (113), and a conductive film (105a, or 126b) are patterned in a given pattern and stacked on a substrate (101) with a correction portion (101) therefore the device claim therefore meets this claims

Art Unit: 2871

requirement wherein The correction portion which separates a short-circuit defect is corrected. A upper layer is present above the film to be corrected at the correction portion and the correction is applied to the film to be corrected the upper-layer film while the upper-layer remains, and without using the upper layer film as a material for the correction and the correction of the correction portion is performed by the irradiation of a laser beam through the at least one upper layer film from a side of the at least one upper layer film opposite the substrate and not through a substrate.(Note: Examiner can't tell from looking at the finished structure whether the repair was done through the SiO alignment layer or before the SiO layer was put on)

Regarding Claim 5.

Katayama et al discloses in Figure 13 the upper-layer film (113) above the film to be corrected (101) includes a transparent insulator (117).

Regarding Claim 6.

Katayama et al discloses the correction portion is performed by irradiating the laser beams from a side opposite to the substrate. (Column 18, Row 61-68 and Column 19, Rows 1-4). The corrected state is the normal performing state.

This is a product by process limitation [See MPEP 2113], which does not distinguish the structure of the claimed device from the structure of the reference so Claim 6 is rejected as well. Johnson discloses the structure therefore the device claim therefore meets this claims requirement wherein the correction portion

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (US 4752118) in view of Liu et al (US 5518956).

Johnson discloses everything as disclosed above.

Johnson does not disclose dividing the laser beams plural times.

Liu et al disclose the laser beam being pulsed, which divides the laser beams plural times. (Column 4, Row 64-67 and Column 5, Row 1-20) Control of the laser pulse rate determines the number of laser pulses delivered per second and thus effects the rate of ablation of the material in which the laser beam is absorbed.

It would have been obvious to one of ordinary skill in the art, at the time when the invention was made to have Johnson's display device to include Liu et al's pulsing laser beam to control the laser pulse rate to control how much power being irradiated to the material. (Column 4, Row 64-67 and Column 5, Row 1-20)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUCY P. CHIEN whose telephone number is (571)272-8579. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lucy P Chien
Examiner
Art Unit 2871

/David Nelms/

Supervisory Patent Examiner, Art Unit 2871